

In the Claims:

I<sup>1</sup>

25. (Amended) A hybrid PKS gene according to claim 68 wherein said loading module is capable of loading a substrate to produce a starter unit different from a starter unit normally associated with said at least one extension module.

26. (Amended) A hybrid PKS gene according to claim 67 wherein said loading module is capable of loading any of a multiplicity of different starter units.

I<sup>2</sup>

31. (Twice Amended) A nucleic sequence encoding a gene according to claim 67 operably linked to a PKS type II promoter.

33. (Twice Amended) A nucleic sequence according to claim 31, wherein the promoter is the act I promoter of *S. coelicolor*.

I<sup>3</sup>

34. (Twice Amended) A nucleic sequence according to claim 32, wherein the promoter is the act I promoter of *S. coelicolor*.

35. (Amended) A hybrid polyketide synthase as encoded by a gene according to claim 67.

36. (Amended) A vector including a gene according to claim 67.

I<sup>3</sup>

37. (Twice Amended) A transformed microorganism containing a gene according to claim 67 and able to express a polyketide synthase encoded thereby.

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I<sup>4</sup>

39. (Thrice Amended) A method of making a polyketide by culturing the microorganism of claim 37 wherein said microorganism is an actinomycete.

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I<sup>5</sup>

44. (Amended) A hybrid PKS gene according to claim 67, wherein said first nucleic acid portion encodes at least a loading module which comprises an acyltransferase and an acyl carrier protein, and said second nucleic acid portion encodes at least one extension module.

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I<sup>6</sup>

47. (Amended) A plasmid comprising a gene according to claim 67.

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I<sup>7</sup>

50. (Twice Amended) A plasmid comprising a gene according to claim 67 which is adapted to integrate into a specific attachment site (att) of a host's chromosome.

51. (Amended) A method of producing a transformant microorganism comprising the steps of:

(a) producing a plasmid which comprises donor DNA which is

a gene according to claim 67, and

- (b) transforming with said plasmid a microorganism having a chromosome including DNA which undergoes homologous recombination with said plasmid to integrate said gene into the chromosome.

54. (Twice Amended) A hybrid PKS gene according to claim 67, wherein said first type I PKS naturally includes a thioesterase as a chain terminating enzyme, and wherein said hybrid gene includes a nucleic acid sequence encoding the enzyme from the rapamycin system which, in said rapamycin system, effects connection of the polyketide chain to an amino acid chain in place of said thioesterase.

55. (Amended) A transformed prokaryotic organism containing a gene according to claim 67 and operable to express a polyketide synthase encoded thereby.

56. (Amended) A transformed microorganism which naturally expresses a polyketide synthase and which contains as a result of its transformation a gene according to claim 67 and is operable to express a polyketide synthase encoded thereby.

64. (Amended) A method of making a polyketide comprising:  
a. providing a transformed host microorganism containing